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This listing of claims will replace all prior versions of claims in the application.

Claims 1-2. (cancelled)

Claim 3. (currently amended) A method for detection and diagnosis of ovarian cancer comprising:

~~measuring~~ detecting at least one protein biomarkers in a subject sample, wherein the protein markers are selected from:

- Marker I: having a molecular weight of about 8.6 kD
- Marker II: having a molecular weight of about 9.2 kD
- Marker III: having a molecular weight of about 19.8 kD
- Marker IV: having a molecular weight of about 39.8 kD
- Marker V: having a molecular weight of about 54 kD
- Marker VI: having a molecular weight of about 60 kD
- Marker VII: having a molecular weight of about 79 kD

and; correlating the ~~measurement~~ detection of one or more protein biomarkers with a diagnosis of ovarian cancer.

Claim 4. (original) The method of claim 3 wherein one or more protein biomarkers are used to diagnose ovarian cancer.

Claim 5. (currently amended) The method of ~~claim 3~~ any one of claims 1 through 4 wherein a plurality of the biomarkers are detected.

Claims 6-8. (cancelled)

Claim 9. (currently amended) The method of ~~claim 3~~ any one of claims 1 through 4 wherein a single biomarker is used in combination with one or more known cancer biomarkers

for diagnosing cancer.

Claim 10. (currently amended) The method of ~~claim 3~~ ~~any one of claims 1 through 4~~ wherein a plurality of the markers are used in combination with one or more known cancer markers for diagnosing cancer.

Claim 11. (original) The method of claim 9 or 10 wherein the known cancer markers are ovarian cancer markers for diagnosing ovarian cancer.

Claim 12. (original) The method of 11 wherein the known ovarian cancer marker is CA 125.

Claims 13-33. (cancelled)

Claim 34. (currently amended) The method of ~~claim 3~~ ~~any one of claims 1 through 33~~ wherein one or more of the markers are detected using laser desorption/ionization mass spectrometry, comprising:

providing a probe adapted for use with a mass spectrometer comprising an adsorbent attached thereto, and;

contacting the subject sample with the adsorbent, and;

desorbing and ionizing the marker or markers from the probe and detecting the deionized/ionized markers with the mass spectrometer.

Claims 35-38. (cancelled)

Claim 39. (currently amended) The method of ~~claim 3~~ ~~any one of claims 1 through 33~~ wherein at least one or more protein biomarkers are detected using immunoassays.

Claim 40. (original) A process for purification of a biomarker, comprising fractioning a sample comprising one or more protein biomarkers by size-exclusion chromatography and collecting a fraction that includes the one or more biomarker; and/or fractionating a sample comprising the one or more biomarkers by anion exchange chromatography and collecting a fraction that includes the one or more biomarkers.

Claims 41-45. (cancelled)

Claim 46. (currently amended) The process of claim 40 ~~any one of claims 40 through 45~~ wherein the one or more biomarkers are selected from:

- Marker I: having a molecular weight of about 8.6 kD
- Marker II: having a molecular weight of about 9.2 kD
- Marker III: having a molecular weight of about 19.8 kD
- Marker IV: having a molecular weight of about 39.8 kD
- Marker V: having a molecular weight of about 54 kD
- Marker VI: having a molecular weight of about 60 kD
- Marker VII: having a molecular weight of about 79 kD

Claim 47. (currently amended) A kit for aiding the diagnosis of ovarian cancer, comprising:

an adsorbent attached to a substrate, wherein the adsorbent retains one or more biomarker selected from:

- Marker I: having a molecular weight of about 8.6 kD;
- Marker II: having a molecular weight of about 9.2 kD;
- Marker III: having a molecular weight of about 19.8 kD;
- Marker IV: having a molecular weight of about 39.8 kD;
- Marker V: having a molecular weight of about 54 kD;
- Marker VI: having a molecular weight of about 60 kD; and

Marker VII: having a molecular weight of about 79 kD, and
written instructions for use of the kit for detection of ovarian cancer.

Claims 48-61. (cancelled)

Claim 62. (currently amended) The method of ~~claim 3~~ ~~any one of claims 1 through 39 and 57 through 61~~ wherein the stage of ovarian cancer is assessed.

Claim 63. (original) A purified protein selected from:
Marker I: having a molecular weight of about 8.6 kD;
Marker II: having a molecular weight of about 9.2 kD;
Marker III: having a molecular weight of about 19.8 kD;
Marker IV: having a molecular weight of about 39.8 kD;
Marker V: having a molecular weight of about 54 kD;
Marker VI: having a molecular weight of about 60 kD; and
Marker VII: having a molecular weight of about 79 kD.

Claim 64. (cancelled)

Claim 65. (currently amended) A composition comprising ~~an isolated~~ Marker II and one more biomarkers selected from Markers I, III, IV, V, VI, and VII.

Claims 66-69. (cancelled)

Claim 70. (currently amended) A composition comprising ~~an isolated~~ Marker VII and one more biomarkers selected from Markers I, II, III, IV, V, and VI.

Claims 71-80. (cancelled)

Claim 81. (new) A method for qualifying ovarian cancer status in a subject comprising:

(a) measuring at least one biomarker in a sample from the subject, wherein the biomarker is selected from the group consisting of:

transferrin or a fragment thereof; or

haptoglobulin precursor protein or a fragment thereof; and

(b) correlating the measurement with ovarian cancer status.

Claim 82. (new) The method of claim 81 wherein a plurality of the biomarkers are measured.

Claim 83. (new) The method of claim 81 wherein a biomarker is measured that has at least about 80 percent sequence identity to transferrin.

Claim 84. (new) The method of claim 81 wherein a biomarker is measured that has at least about 80 percent sequence identity to haptoglobulin precursor protein or fragment thereof.